

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NSPS SOURCE - RENEWAL

PERMITTEE

Marathon Petroleum LLC
Attn: Julius Blanco
539 South Main Street
Findlay, Ohio 45840

Application No.: 81010049

I.D. No.: 019802AAG

Applicant's Designation:

Date Received: September 7, 2005

Subject: Petroleum Liquids Terminal

Date Issued:

Expiration Date:

Location: 511 South Staley Road, Champaign

This Permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of twenty three (23) petroleum liquids storage tanks (including 10 tanks with internal floating roof), tank truck loading rack controlled by regenerative carbon adsorption vapor recovery system (or portable vapor combustion unit as a back-up) and an oil/water separator pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of Volatile Organic Material (VOM) and Hazardous Air Pollutants (HAPs) from the source to less than major source thresholds (i.e., 100 tons/year for VOM, 10 tons/year for a single HAP and 25 tons/year for totaled HAP). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits for this location.
- 2a. The storage tanks (80-5 and 35-9) constructed after June 11, 1973 are subject to New Source Performance Standards (NSPS) for Storage Vessels of Petroleum Liquids, 40 CFR 60, Subparts A and K. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. A petroleum liquid that, as stored, has the true vapor pressure equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), shall not be stored in the storage tanks having a storage capacity equal to or greater than 40,000 gallons, unless the tank is equipped with a floating roof, a vapor recovery system, or their equivalents.

- c. The Permittee shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period, pursuant to 40 CFR 60.113.
- d. At all times the Permittee shall also maintain and operate the storage tanks, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to the NSPS, 40 CFR 60.11(d).
- 3a. The gasoline loading rack is a subject to New Source Performance Standards (NSPS) for Bulk Gasoline Terminals, 40 CFR 60, Subparts A and XX. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Each loading rack shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading [40 CFR 60.502(b)].
- c. The emissions to the atmosphere from the vapor collection system due to the loading of liquid product into gasoline tank trucks are not to exceed 35 milligrams of total organic compounds per liter of gasoline loaded [40 CFR 60.502(c)].
- d. Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack (40 CFR 60.502(d)).
- e. Loadings of liquid product into gasoline tank trucks shall be limited to vapor-tight gasoline tank trucks complying with provisions of 40 CFR 60.502(e).
- f. The Permittee shall act to assure that loadings of gasoline tank trucks are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system [40 CFR 60.502(g)].
- g. The Permittee shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility [40 CFR 60.502(h)].
- h. The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading [40 CFR 60.502(i)].
- i. No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water) [40 CFR 60.502(j)].
- j. Each calendar month, the vapor collection system, the vapor processing system, and each loading rack handling gasoline shall be inspected during the loading of gasoline tank trucks for total organic compounds

liquid or vapor leaks. For purposes of this paragraph, detection methods incorporating sight, sound, or smell are acceptable. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected [40 CFR 60.502(j)].

- 4a. Emissions of organic material into the atmosphere shall not exceed 3.6 kg/hr (8 lbs/hour) during the loading of any organic material from the aggregate loading pipes of any loading area having throughput of greater than 151 cubic meters per day (40,000 gallons/day) into any railroad tank car, tank truck or trailer unless such loading area is equipped with submerged loading pipes or an equivalent device [35 Ill. Adm. Code 215.122(a)].
- b. No person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gallons), unless such tank is equipped with a permanent submerged loading pipe or an equivalent device [35 Ill. Adm. Code 215.122(b)].
- c. If no odor nuisance exists the limitations of Conditions (a) and (b) above shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) [35 Ill. Adm. Code 215.122(c)].
5. The gasoline loading rack shall comply with requirements of 35 Ill. Adm. Code 215.582.
6. The source operation and VOM emissions shall not exceed the following limits:

- a. VOM emissions and operations of the organic liquids storage tanks.

<u>Stored Material</u>	<u>Material Throughput</u>		<u>VOM Emissions</u>	
	<u>(10³ Gal/Mo)</u>	<u>(10³ Gal/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Gasoline*	65,000	565,000	6.2	53.2
Distillates**	25,000	225,000	0.4	1.7

VOM emissions from the storage tanks operations shall be calculated using equations given by AP-42 (most current edition, Section 7.1) and utilized in the USEPA distributed computer programs TANKS.

- b. VOM emissions and operations of the tank truck loading rack.

<u>Loaded Material</u>	<u>Material Throughput</u>		<u>Emission Factor</u>	<u>VOM Emissions</u>	
	<u>(10³ Gal/Mo)</u>	<u>(10³ Gal/Yr)</u>	<u>(Lb/10³ Gal)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Gasoline*	65,000	565,000	0.084	2.7	23.7
Distillates**	25,000	225,000	0.014	0.4	1.9

VOM emission factors for gasoline are based on the compliance stack tests performed for gasoline loading; emission factor for distillates is based on the standard emission factor given by AP-42 (most current edition, Table 5.2-5).

- * - Includes Gasoline, Ethanol and Transmix
- ** - Includes Distillate Fuel Oil and Additives

- c. Fugitive VOM emissions associated with vapor leakage from the gasoline tank trucks during loading operations shall not exceed 1.9 tons/month and 16.5 tons/year. These limits are based on the gasoline loading rate 50,000,000 gallons/month and 440,000,000 gallons/year and emission factor 0.075 lbs/10³ gallon proposed in USEPA publication EPA-450/3-80-038a.
 - d. Fugitive VOM emissions from the terminal operations shall not exceed 0.2 tons/month and 2.1 tons/year. It shall be calculated using USEPA SOCMF factors (EPA-453/R-95-017).
 - e. This permit is issued based on negligible emissions of volatile organic material (VOM) from the oil/water separator. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
 - f. These limits define the potential emissions of the VOM and are based on the actual emissions determined from the maximum production capacity. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.
- 7a. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.
- b. HAP emissions shall be calculated as a percentage of VOM emissions proportional to the HAP concentration in the vapor phase over the liquid surface.
- 8a. The tank truck vapor tightness documentation required under 60.502(e)(1) shall be kept on file at the terminal in a permanent form available for inspection [40 CFR 60.505(a)].
- b. The documentation file for each gasoline tank truck shall be updated at least once per year to reflect current test results as determined by Method 27 [40 CFR 60.505(b)].

- c. A record of each monthly leak inspection required under 60.502(j) shall be kept on file at the terminal for at least 2 years [40 CFR 60.505(c)].
- 9. The Permittee shall maintain monthly records of the following items:
 - a. For each storage tank and each loading rack:
 - i. Names and identification number of materials transferred and/or stored;
 - ii. Material throughput (gallons/month, gallons/year); and
 - iii. Material true vapor pressure.
 - b. VOM and total HAP emissions, with supporting calculations (tons/month, tons/year).
 - c. Separate emission records for each individual HAP with emission rate exceeding 0.5 tons/month.
- 10. The Permittee shall notify the Illinois EPA about any change in the materials stored at the source other than those specified in the permit application within 10 days of such a change.
- 11. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA and USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to Illinois EPA request for records during the course of a source inspection.
- 12. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

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If you have any questions on this permit, please call Dwayne Booker at 217/782-2113.

Donald E. Sutton, P.E.
Manager of Permit Section
Division of Air Pollution Control

DES:DLB:psj

cc: Illinois EPA, FOS Region 3
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emissions from the petroleum bulk terminal operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. This is a throughput of 565,000,000 gallons of gasoline and 225,000,000 gallons of distillates per year. The resulting maximum emissions are below the levels, e.g., 100 tons/year for VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled HAP, at which this source would be considered a major source for purposes Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

<u>Emission Unit</u>	<u>VOM (Tons/Year)</u>	<u>HAPs</u>	
		<u>Single (Tons/Year)</u>	<u>Combined (Tons/Year)</u>
Storage Tanks			
Gasoline*	53.2		
Distillates**	1.7		
Truck Loading Rack			
Gasoline*	23.7		
Distillates**	1.9		
Fugitives from Tank Trucks	16.5		
Other Fugitives	2.1		
Oil/Water Separator	<u>0.44</u>		
Totals	<u>99.7</u>	<u>< 10</u>	<u>< 25</u>

* Includes Gasoline, Ethanol and Transmix

** Includes Distillate Fuel Oil and Additives

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